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Finanční analýza firmy RIM

Financial Analysis of RIM Company

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4. Financial analysis of company
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Bibliography
List of Abbreviations
Declaration of Utilization of Results from the Bachelor Thesis
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"Herewith I declare that I elaborated the entire thesis, including all annexes, independently."

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1 Introduction

This thesis is devoted to the financial analysis of Research In Motion Company (change into BlackBerry Company in 2013), a global leader in wireless innovation, revolutionized the mobile industry with the introduction of the BlackBerry solution in 1999.

The objective of the thesis is to assess BlackBerry's performance, potential and compare with competitors by using financial data and ratios from 2008 to 2012.

There are five chapters in the thesis, list as follow: 1. Introduction; 2. Description of the financial analysis methodology; 3. Characterization of BlackBerry Company; 4. financial analysis of BlackBerry Company; 5. Conclusion. At last, there are several Annexes.

In detail, chapter 2 is the theoretical basis of the thesis. We'll introduce the definition and formula of these analysis methods like common-size analysis, financial ratio analysis, and Pyramidal decomposition. In chapter 3 we describe the characterization of BlackBerry Company, like the history, main products and the achievement during these years, and the strategy and innovation for adjusting to the problems faced by Blackberry Company. Chapter 4 will be the stretch of chapter 2 and 3, based on the methods explained in chapter 2 we may analysis profitability, assets utilization, liquidity, and debt utilization, figure out how the company performance and connected to the relevant event or strategy. Then, the last part is conclusion of chapter before and some financial forecasting.

2 Description of the financial analysis methodology

The financial analysis of a company is a process of gathering, choosing, evaluating, and expressing financial data to evaluate the company's performance, potential, present value and compare with other competitors. Then we can do some changes and push the company operating better.

We'll describe what are financial analysis and the financial statement in details and then discuss three financial analysis methods in this chapter: Common-size Analysis, Ratio Analysis, and Pyramidal decomposition.

2.1 Financial analysis of a company

Financial analysis is to systematically analyze historical and present operating results and financial position of a company, including their changes, based on financial statements and other data using special methods, so as to review the past, evaluate the present and forecast the future[1].

In a financial analysis, by using data obtained in financial statements or some others documents, we calculate lots of financial indicators to assess the company's ability to pay debts, make profit, operate and gain cash flows, discovery possible problems and eventually make a smart decision on operating, management based on analysis.

Financial analysis mainly deals with, first, basic information on the industry where the company operates and the outlook for its development at the macroeconomic level, and then

[1] See [7]

financial statements that reflect its profitability, solvency, operating efficiency and liquidity[2].

Profitability

The management and operating performance determine its size growth rate and revenue of a company to some extent. When buying stocks in stock exchange, we first select companies that profit beautifully. Therefore, the analysis of financial statements begins with profitability.

Solvency

It's not wise to buy stock in company insolvent or near failure. Generally, you may look at two aspects: short-term solvency and long-term solvency. You can judge its short-term solvency ability to pay debts by reviewing its fund flows. And long-term solvency can be evaluated by comparison between different claims, claims and earnings, and claims and assets.

Activity

It is mainly to find turnover rate of funds in financial statements and determine whether a company's assets are managed and operated efficiently.

Liquidity

How much cash a firm has at hand immediately reflects its money prospects. If a company reports profit every year but suffers negative operating cash flow, it just creates "paper wealth". Inadequate cash flows will directly affect operations

All the financial analysis based on financial statements helps understand operational performance of a company and make reasonable decisions on investment and the financial statement will be described in part 2.2.

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[2] See [7]

2.2 Financial statement of a company

The biggest part of financial analysis involves digging into the financial statements. Also known as quantitative analysis, this involves focusing on revenue, costs, assets, liabilities and all the other financial aspects of a company. Financial analysts look at this information to gain insight on a company's future performance. A good part of this section will be spent talking about the balance sheet, income statement, cash flow statement and how they all fit together.

2.2.1 Balance sheet

The balance sheet is an important part in financial statement and it represents the first impression of a company and highlights the financial conditions of a company.

In a balance sheet, it summarize the information of basic data like assets, receivables, liabilities and so on to tell us like how much it owns and how much it owes. And the difference between what it owns and what it owes is its equity. That's the basic formula:

$$\text{Assets} = \text{Liabilities} + \text{Shareholders}' \text{ equity} \tag{2.1}$$

To describe these three parts in details is as follows:

Assets

Assets are consist of two main parts: current assets and non-current assets. Current assets are like cash, short-term assets which have high liquidity in the form of cash or can be relatively converted into cash. Main categorizations are: receivables, inventories and cash and cash equivalents. Non-current assets include long-term assets, usually have a long life and low liquidity, for example trademarks, goodwill, equipment, buildings and so on.

Liabilities and shareholders' equity

The same as assets, there are current liabilities and non-current liabilities. Current liabilities are obligations the firm must pay within a year, such as payments owing to suppliers. Non-current liabilities, meanwhile, represent what the company owes in a year or more time. Typically, non-current liabilities represent bank and bondholder debt.[3] Equity represents the shareholders' investment and contribution by the owners or by company's profit.

Table 2.1 Sample of balance sheet

(In millions, USD)	2008		
Cash and cash equivalents	1,184	Income taxes payable	475
Short-term investments	421	Deferred revenue	37
account receivable, nets	1,174	Current portion of long-term debt	0.349
Other receivables	75	Deferred income tax liability	0
Inventory	396	Total current liabilities	1474
Other current assets	136	Income taxes payable	31
total current assets	3,477	total non-current liabilities	38
Long-term investments	739	Total liabilities	1577
Property, plant and equipment, net	706	Capital stock	2,170
Goodwill	114	Retained earnings	1,653
Total Non-current Assets	1559	Additional paid-in capital	81
Total assets	5,511	Accumulated other comprehensive income	30

[3] See [8]

Accounts payable	271	Total shareholders' equity	3,934
Accrued liabilities	691	Total liabilities and shareholders' equity	5,511

2.2.2 Income statement

The income statement is also called profit/loss statement. It indicates the amount of money generated by a company over a certain period, often a year. It contains the numbers most often discussed when a company announces its results - such as revenue, earnings and earnings per share. The basic equation underlying the profit/loss statement is:

$$\text{Net income} = \text{Revenues} - \text{Costs} \tag{2.2}$$

Operating activities and financing activities are calculated in income statement: both activities are calculated as a difference between the sums of revenues and costs. Operating activities are like selling goods and services, administration, electricity and depreciations. Financing activities include issue bond and stock, investment by buying stock and bonds or debt.

Table 2.2 Sample of income statement

(In millions, USD)	2008
Revenue	6,009
Cost of sales	2,929
Gross margin	3,080
Research and development expenses	360
Selling, marketing and administrative expenses	881
Amortization	108
Impairment of goodwill	0

Total operating expenses	1,349
Income from operations	1,731
Investment income, net	80
Income before income taxes	1,811
Provision for income taxes	517
Net income	1,294
earnings per share(diluted)	$2.26

2.2.3 Cash flow

The cash flow statement shows how much cash comes in and goes out of the company over a certain period often a year. Cash inflows equals amount of money received during a period, cash outflows equals amount of money spent during a period. We should distinguish cash flow statement and income statement. While income statement is calculated on accrual basis and cash flow statement is calculated on cash flow. The basic formula is as follows:

$$\text{Net cash flow} = \text{Sum of inflows} - \text{outflow} \tag{2.3}$$

$$\text{Cash at the end} = \text{cash at the beginning} + (-)\text{netcash flow} \tag{2.4}$$

There are three parts of cash flow: cash flow from operating activities, cash flow of investing activities and cash flow from financing activities. Operating activities and financing activities we have discussed in income statement. Investing activities largely reflects the amount of cash the company has spent on capital expenditures, such as new equipment or anything else that needed to keep the business going. It also includes acquisitions of other businesses and monetary investments such as money market funds.

Table 2.3 Sample of cash flow

(In million, USD)	2008

Net income	1,294
Amortization	177
Deferred income taxes	-67
Stock-based compensation	34
Impairment of goodwill	0
Net changes in working capital items	131
Net cash provided by operating activities	1,577
Acquisition of long-term investments	-758
Acquisition of short-term investments	-1,250
Proceeds on sale or maturity of short-term investment	1,326
Net cash used in investing activities	-1,154
Issuance of common shares	62
Additional paid-in capital	10
Repayment of debt	-0.3
Net cash provided by financing activities	80
Effect of foreign exchange gain(loss) and cash equivalents	4
Net increase(decrease) in cash and cash equivalents during the year	507
Cash and cash equivalents, beginning of year	677
Cash and cash equivalents, end of year	1,184

2.3 Common-size Analysis

Common-size analysis is a kind of method which we use it to analysis financial statements and their changes over the time; its aim is to identify the trends, major differences,

and due to it we can make comparison of problems with initial plans. There are two types in it: one is vertical common-size analysis; another one is horizontal common-size analysis.

2.3.1 Vertical Common-size Analysis

Vertical common-size analysis is the most common which we can compare the proportions though the time and the company's industry. It's an analysis of the changes in the proportions of selected benchmarks, like total revenues, total assets, total liabilities, etc. We use vertical common-size analysis to analyze patterns in profitability (using common-size income statements) and patterns in investments and financing (using common-size balance sheets). In details[4]:

- For the income statement, the benchmark is revenue. For a given period, revenue equal 100% and each item in the income statement is restated as a percentage of revenue. For example, we may say that selling expenses are 20% of revenue.
- For the balance sheet, the benchmark is total assets. For a given point in time, total assets equal 100% and each item in the balance sheet is restated as a percentage of total assets, and we may also say that Cash and cash equivalents are 20% of total assets.

The basic formula is:

$$\text{portion} = \frac{x_i}{\sum x_j} \tag{2.5}$$

Where x_i is one part of x_j, x_j is selected benchmark like total assets equals the sum of each component.

[4] See [4]

2.3.2 Horizontal Common-size Analysis

Horizontal common-size analysis, also called trend analysis, is an analysis of the evolution of financial statements data over that time or their changes with respect to a given period as a benchmark. In this case, each line item on the data (e.g. income statement) in a given year is pegged to a base year. Its purpose is to determine the increase or decrease that has taken place. Horizontal analysis is commonly applied to the balance sheet, income statement, and statement of retained earnings. For example, we can say that the gross profit increased 20% than last year[5].

The basic formulas are as follows:

$$\text{Absolute change } \Delta x = x_t - x_{t-1} \tag{2.6}$$

$$\text{Relative change} = \frac{\Delta x}{x_{t-1}} \tag{2.7}$$

2.4 Financial Ratio Analysis

Ratios are used quite a lot in our daily life. We judge football team or most valuable player by shoot at the goal percentage and foul-shooting percentage; in online game, contribution percentage is the most important criteria in team work, the higher you are, the better the equipment you can choose. Financial ratio analysis is a comparison of financial data in the form of financial ratios to assess the financial health of the company; we must know that what is being measured and the meaning of result and to compare the strengths and weaknesses, there are four parts:

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[5] See [8]

- **Profitability ratios** (analyze the company's ability to generate profit from invested capital)
- **Liquidity ratios** (measure company's ability to meets its immediate and short-term obligations)
- **Solvency ratios** (measure company's ability to meet its long-term obligations)
- **Activity ratios** (measure the efficient of assets usage)

2.4.1 Profitability ratios

They measure the company's use of its assets and control of its expenses to generate an acceptable rate of return. The higher the profitability ratios, the better the competitive position of the company.

Gross profit margin

Gross profit margin is the gross margin divided by revenue. The formula is as follows:

$$\text{Gross profit margin} = \frac{gross\ margin}{revenue} \tag{2.8}$$

Net profit margin

Net profit margin is the number of dollars of after-tax profit a firm generates per dollar of sales. We can calculate the gross profit margin like:

$$\text{Net profit margin} = \frac{net\ profit}{total\ revenue} \tag{2.9}$$

Operating profit margin

Operating profit margin is also known as operating income margin, operating profit margin and return on sales (ROS) — is the ratio of operating income divided by net sales. The

formula is as follows:

$$\text{Operating profit margin} = \frac{operating\ income}{total\ revenue} \tag{2.10}$$

Return on assets

Return on assets is calculated by dividing a company's annual earnings by its total assets, shows how efficient management is at using its assets to generate earnings. We can calculate it like:

$$\text{Return on assets} = \frac{net\ income}{total\ assets} \tag{2.11}$$

Return on equity

Return on equity is the rate of return on the shareholders' equity of the common stock owners. So here we use the net income to measure a company's efficiency at generating profits from every unit of shareholders' equity. We can calculate it like:

$$\text{Return on equity} = \frac{net\ income}{total\ shareholder's\ equity} \tag{2.12}$$

2.4.2 Liquidity ratios

Liquidity ratios are ratios to measure Company's ability to meet its immediate or short-term liabilities and obligations. They analyze company's liquid assets (in the form of cash or can be quickly converted in cash) and short-term liabilities and obligations. It examines the liquidity of the firm.

Current ratio

Current ratio is a ratio of current assets divided by current liabilities. It is a financial ratio that measures whether or not a firm has enough resources to pay its debts over the next 12 months. The current ratio indicates a firm's market liquidity and ability to meet creditor's demands. In general it's between 1.5 and 3 for healthy businesses. If it is below 1, the company's current liabilities are more than current assets, which means the company may have problems facing its short-term obligations. If the current ratio is higher than 3, which means current assets are much more than current liabilities, the company didn't use its money well or efficient. We can calculate it like:

$$\text{Current ratio} = \frac{current\ assets}{current\ liabilities} \tag{2.13}$$

Quick ratio

Quick ratio is a ratio of quick assets divided by current liabilities. Quick assets include those current assets that can be quickly turned to cash at close to their face values, which equals current assets minus inventory. Generally, the ratio should be 1:1 or higher and the higher the ratio, the greater the company's liquidity (i.e., the better able to meet current obligations using liquid assets). We can calculate it like:

$$\text{Quick ratio} = \frac{current\ assets - inventory}{current\ liabilities} \tag{2.14}$$

Cash ratio

Cash ratio is to measure the ability of a company to facing current obligations by just using cash and cash equivalents and short-term investment. The formula is as follows:

$$\text{Cash ratio} = \frac{cash\ and\ cash\ equivalent + short-term\ investment}{current\ liabilities} \tag{2.15}$$

2.4.3 Solvency ratios

Solvency ratios will measure company's ability to pay its long-term obligations and the interest on it. In other words, it have to prove that business companies can service their debt or pay the interest on their debt as well as pay the principal when the debt matures. Solvency ratios are different from liquidity ratios which are connected with short-term liabilities, and it is a measure of the firm's long-term survival.

Debt-to-assets ratio

Debt-to-assets ratio is calculating the percentage of a company's assets that are provided via debt. Companies with high debt/asset ratios are said to be "highly leveraged," not highly liquid as stated above. The formula is as follows:

$$\text{Debt} - \text{to} - \text{assets} = \frac{TL}{TA} \tag{2.16}$$

Where the TL is total liabilities, TA is total assets.

Debt-to-equity ratio

Debt-to-equity ratio shows the relative proportion of shareholders' equity and liabilities used to finance a company's assets. We can calculate it like:

$$\text{Debt} - \text{to} - \text{equity} = \frac{total\ debt}{total\ shareholder's\ equity} \tag{2.17}$$

Long-term debt-to-equity

Long-term debt-to-equity is obviously the proportion of total shareholder's equity of the company financed by long-term debt. Long-term debt for a company would include any financing or leasing obligations that are to come due in a greater than 12-month period. The formula is as follows:

$$\text{Long} - \text{term debt} - \text{to} - \text{equity} = \frac{LTD}{TL} \quad (2.18)$$

Where the LTD is Long-term debt, TL is total liabilities.

Financial leverage

Financial leverage is ratio of total assets divided by total shareholder's equity. It can be described as the extent to which a business or investor is using the borrowed money. The formula is as follows:

$$\text{Financial leverage} = \frac{total\ assets}{total\ shareholder's\ equity} \quad (2.19)$$

2.4.4 Activity ratios

An activity ratio is one of several accounting ratios that measure how quickly a company can convert certain of its assets into cash, or revenue and how well a company uses its assets e.g. assets utilization.

Receivables turnovers

A measure used to quantify a company's effectiveness in extending credit as well as collecting debts. The formula is as follows:

$$\text{Receivables turnovers} = \frac{TR}{receivables} \quad (2.20)$$

Where the TR is total revenue.

Inventory turnover

The inventory turnover ratio indicates how often the company turns its inventory into revenue. And a higher ratio is better because it indicates that the company is moving product quickly from its warehouse into stores and, ultimately, into the consumers' hands. We can calculate the ratio like:

$$\text{Inventory turnover} = \frac{sales}{inventory} \tag{2.21}$$

Days sales outstanding in accounts receivables

Days sales outstanding in accounts receivables is a measure of the average number of days that a company takes to collect revenue after a sale has been made.

The lower the ratio is, the less the days take to collect its accounts receivable.

The formula is as follows:

$$\text{DSI} = \frac{accouts\ receivables}{sales/365} \tag{2.22}$$

Where the DSI is days sales outstanding.

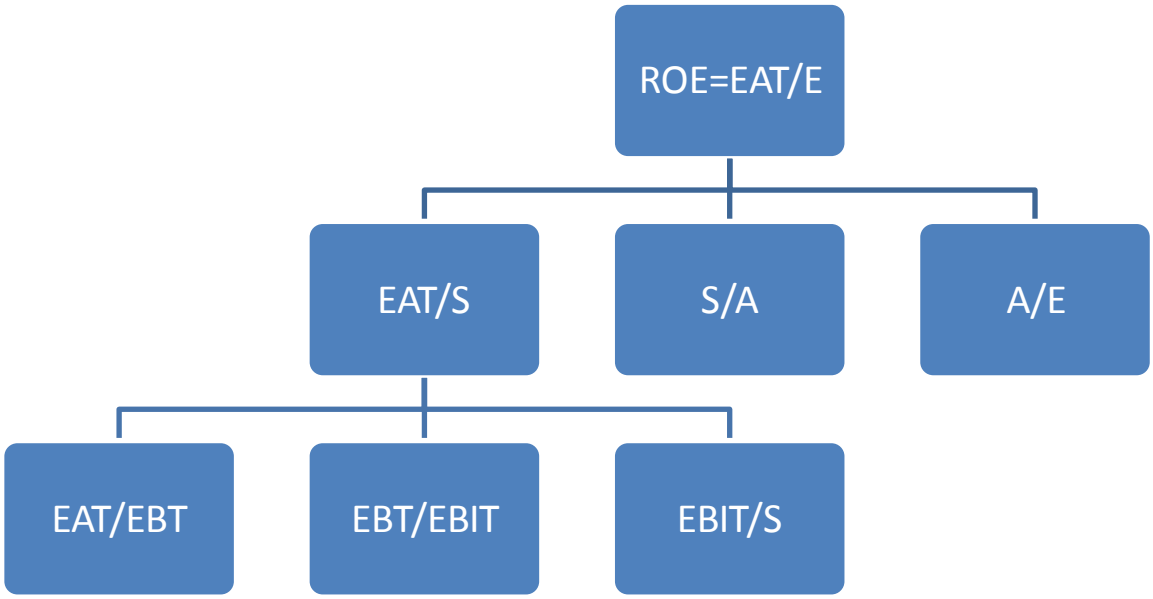
Total assets turnover

The asset turnover ratio indicates that how quickly a company can turn an asset into cash on average. It is calculated by dividing sales by average total assets. The formula is as follows:

$$\text{Total assets turnover} = \frac{total\ revenue}{average\ total\ assets} \tag{2.23}$$

2.5 Pyramidal decomposition

Chart 2.1 Decomposition of ROE



In this section, we'll focus on the analysis of increments based on a pyramidal system of indicators. Most of pyramidal decompositions are based on DuPont analysis. The approach creates a hierarchy of selected financial and economic indicators and their subsequent practical use in the pyramid systems. For example, we start with the analysis of return on equity.

$$\text{ROE} = \frac{EAT}{S} \cdot \frac{S}{A} \cdot \frac{A}{E} \tag{2.24}$$

Furthermore, we can decompose these indicators by cost efficiency and turnover indicators:

$$\frac{\text{EAT}}{S} = \frac{EAT}{EBT} \cdot \frac{EBT}{EBIT} \cdot \frac{EBIT}{S} \tag{2.25}$$

$$\frac{S}{A} = \frac{360}{\frac{A}{S} \cdot 360} = \frac{360}{\frac{FA}{S} \cdot 360 + \frac{CA}{S} 360} \tag{2.26}$$

According to formula (2.17) and (2.18), we may get a more subdivided, decomposition of ROE.

$$\text{ROE} = \frac{EAT}{EBT} \cdot \frac{EBT}{EBIT} \cdot \frac{EBIT}{S} \cdot \frac{360}{\frac{FA}{S} \cdot 360 + \frac{CA}{S} \cdot 360} \cdot \frac{A}{E} \tag{2.27}$$

Where ROE is return on equity, EAT represents net profit (earning after taxes), S represents sales (revenue), EBT is earning before tax, EBIT is earning before interest and tax, FA represents fixed assets, CA represents current assets.

The total increment of ROE can be explained by particular influences according to (2.19) as:

$$\Delta y_{ROE} = \Delta x_{EAT/S} + \Delta x_{S/A} + \Delta x_{A/E} \tag{2.28}$$

The gradual change method

The decomposition for ROE of three particular indicators is as follows:

$$\Delta y_x = \Delta x_{a1} + \Delta x_{a2} + \Delta x_{a3} \tag{2.29}$$

Influences are quantified without a residue due to (2.22) as follows[6]:

$$\Delta x_{ai} = \Delta a_i \cdot \prod_{j<i} a_{j,1} \cdot \prod_{j>i} a_{j,1} \cdot \frac{\Delta y_x}{\Delta x} \tag{2.30}$$

[6] See [5]

3 Characterization of BlackBerry company

Research in Motion announced that effective January 30, 2013; the Company would operate around the world under the iconic name BlackBerry. Effective the start of trading on Monday, February 4, 2013, the Company's new ticker symbols - "BB" on the Toronto Stock Exchange and "BBRY" on the NASDAQ – take effect.

3.1 BlackBerry company profile

In this section, we will discuss the history of BlackBerry, product and main achievements, internal competitors and development strategy, to learn more about its history and current situation.

3.1.1 History of BlackBerry

BlackBerry (Research in Motion) is a leading designer, manufacturer and marketer of innovative wireless solutions for the worldwide mobile communications market. Founded in 1984 and based in Waterloo, Ontario, BlackBerry operates offices in North America, Europe, Asia Pacific and Latin America. It was founded by Mike Lazaridis , who served as its co- CEO along with Jim Balsillie until January 22, 2012. Its current CEO is Thorsten Heins.

For the fiscal period during which the Apple iPhone was first released, BB reported that they had a user base of 10.5 million BlackBerry subscribers. In the quarter ended June 28, 2012, BB announced that the number of BlackBerry subscribers had reached 78 million globally. After the release of the Apple iPhone 5 in September 2012 BB CEO Thorsten Heins announced that the current global users is up to 80 million, which sparked a 7% jump in shares. Until recent

quarters, the company has also operated profitably. In fiscal 2013, the Company had annual sales of $11.1 billion. Net loss from continuing operations was $628 million, or $1.20 per share.

Today, BlackBerry products and services are used by millions of customers around the world to stay connected to the people and content that matter most throughout their day.

3.1.2 Products and main achievement

BlackBerry smartphones

The BlackBerry is a line of wireless handheld devices and services designed and marketed by Research In Motion Limited (RIM) operating as BlackBerry. The first BlackBerry device, an email pager, was released in 1999; the most recent BlackBerry devices, the Z10 and Q10, were announced on January 30, 2013. The user interface varies by model; most feature a physical QWERTY keyboard, while newer generations have relied on a multi-touch screen and virtual keyboard.

BlackBerry Playbook

BlackBerry PlayBook is a tablet computer made by BlackBerry. It was first released for sale on April 19, 2011, in Canada and the United States. The PlayBook is the first device to run BlackBerry Tablet OS, based on QNX Neutrino, and runs apps developed using Adobe AIR.

BlackBerry Enterprise Server

BlackBerry Enterprise Server designates the middleware software package that is part of the BlackBerry wireless platform supplied by Research In Motion (RIM). The software and service connects to messaging and collaboration software (Microsoft Exchange, Lotus Domino, Novell GroupWise, Alt-N MDaemon) on enterprise networks and redirects emails and synchronize contacts and calendaring information between servers, desktop workstations, and

mobile devices.

A feature of the newer models of the BlackBerry is their ability to quickly track your current location through trilateration without the use of GPS, thus saving battery life and time. In addition, BES provides network security.

QNX

As a microkernel -based OS, QNX is based on the idea of running most of the OS in the form of a number of small tasks, known as servers. QNX Neutrino (2001) has been ported to a number of platforms and now runs on practically any modern CPU that is used in the embedded market.

3.1.3 BlackBerry's main international competitors

The Company is engaged in an industry that is highly competitive and rapidly evolving and, to date, no technology has been exclusively or commercially adopted as the industry standard for wireless data communication. RIM believes the global smartphone and tablet markets are still in their infancy, both the nature of competition and the scope of the business opportunities afforded by this market are currently evolving, uncertain and highly competitive.

While RIM has recently enjoyed rapid growth in many international markets such as Thailand, Indonesia, Spain, Latin America, and others, particularly in the consumer segment, the Company has seen its global market share decline over the past several years relative to companies such as Apple and its iOS ecosystem, and companies that build smartphones based on the Android ecosystem, such as Samsung. In the United States, the Company has experienced a substantial decline in its largest market and experienced a net decrease in its

subscriber base[7].

3.1.4 Development and strategy

Strategy

The Company's vision is to be a leader in mobile computing. To achieve this vision, the Company's strategy is based on the following principles:

• Expanding BlackBerry to be a leading mobile computing company to encompass the smartphone, tablet, enterprise and embedded markets.

• Establishing BlackBerry amongst the top 3 mobile platform and driving further global growth to create value for stakeholders.

• Building on the successful launch of BlackBerry 10 by continuing to roll out BlackBerry 10 to customers around the world while holding the position of BlackBerry 7 products for entry-level and low-cost markets.

• Furthering the Company's transformation by driving additional efficiencies, reducing complexity, increasing accountability and fostering strategic organizational capabilities.

3.2 Common-size analysis of BlackBerry Company

According to the data in balance sheet, income statement, and cash flow from 2008 to 2012 and methods in chapter 2, we'll do the common-size analysis about BB Company. The data will be showed in Annexes 1, 2 and 3.

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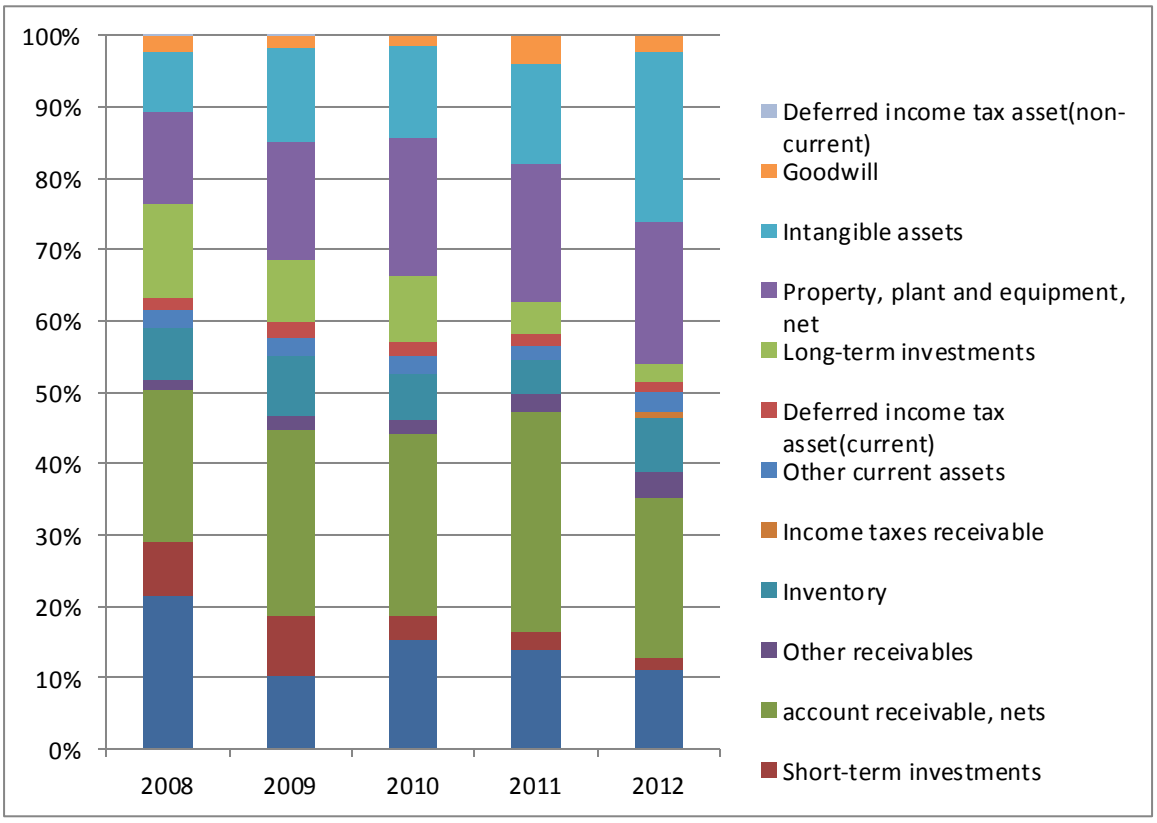
[7] See [6]

3.2.1 Vertical Common-size Analysis

In this part, we'll get the percentage of each item in total amount by one point of time, and be more familiar about the structure of financial statement.

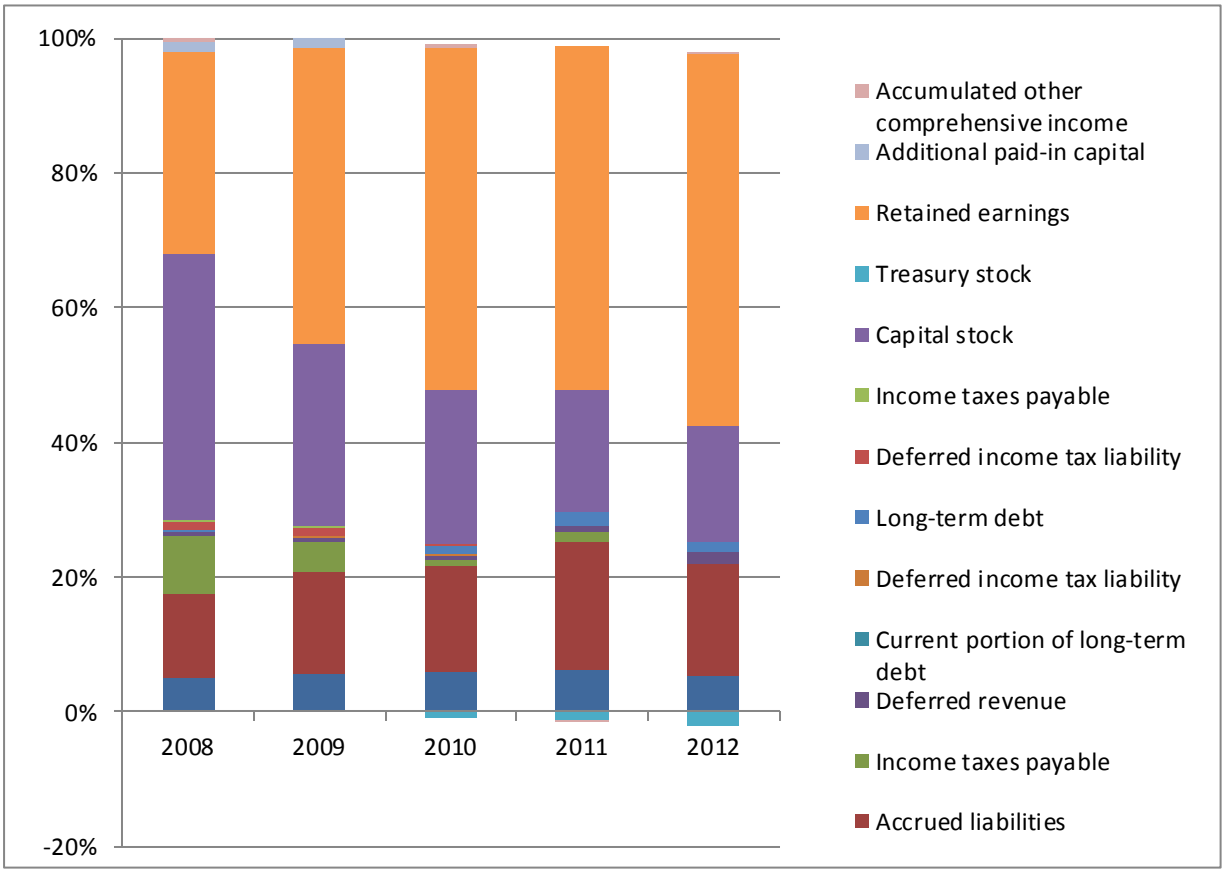
Chart 3.1 Vertical common size analysis of balance sheet (assets)



According to the vertical common size analysis of balance sheet (assets), we can see that the account receivable is stable being a big part of assets, one fourth which is very high compare to some other competitors. This is based on two main reasons: one is the customer are old or familiar to BlackBerry, the Company evaluates the collectability of its accounts receivables based upon a combination of factors on a periodic basis such as specific credit risk of its customers, historical trends and economic circumstances. Another is the amount of customer reserve is very high. And the Intangible assets and Property, plant and equipment are increasing its proportion obviously, which means BlackBerry is focusing on patents and patent applications spanning wireless, wireless 4G, data networking, voice, internet and other patents

and the operating methods is diversification. But the decreasing in long-term and short-term investment shows the weakness of BlackBerry in investing or operating its money.

Chart 3.2 Vertical common size analysis of balance sheet (liabilities and equity)



As showed in the chart 3.2, retained earnings, capital stock and accrued liabilities, in which retained earnings are the largest part and growing rapidly these years. And it also tells us that BlackBerry is focusing on long-term financing and company benefits rather than short-term dividend on shares. Actually BlackBerry purchases lots of patents and relative applications for research and development. The accrued liabilities are slowly increased while the capital stock is on the opposite.

Chart 3.3 Vertical common size analysis of income statement

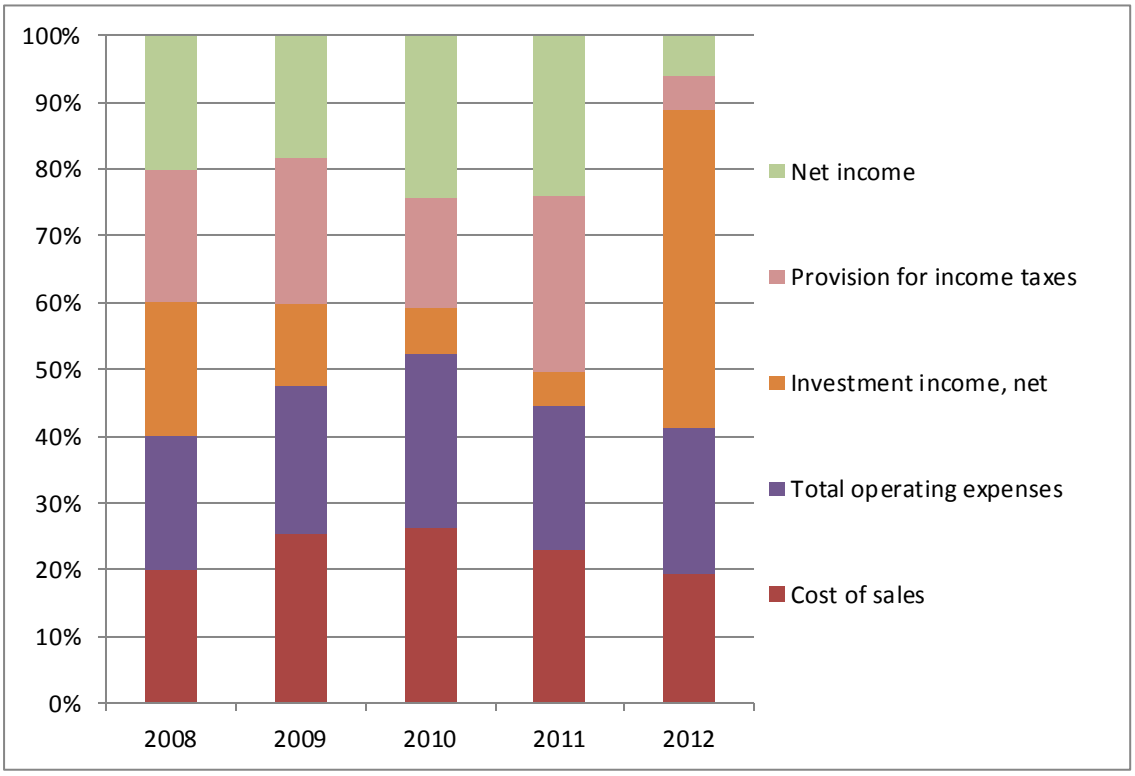


Table 4.3 and chart 4.3 first indicates that revenues are gained most by selling goods. Another one important part is the operating expenses and total operating expenses for fiscal 2012 as a percentage of revenue increased by 5.2% to 27.6% of revenue compared to fiscal 2008. And the net income keep decreasing which is also a big problem BlackBerry facing while other competitors like Apple and android operating system capture more and more market especially in America.

3.2.2 Horizontal Common-size Analysis

Table 3.1 Horizontal common size analysis of Balance sheet (assets)

	2008	2009	2010	2011	2012

Cash and cash equivalents	100%	70.52%	185.75%	115.47%	85.26%
Short-term investments	100%	162.23%	52.86%	91.41%	74.85%
account receivable, nets	100%	179.90%	122.82%	152.47%	77.42%
Other receivables	100%	210.67%	130.38%	157.28%	153.09%
Inventory	100%	172.22%	96.77%	93.64%	166.18%
Income taxes receivable	100%	-	-	-	-
Other current assets	100%	137.50%	132.09%	97.57%	151.45%
Deferred income tax asset(current)	100%	202.20%	105.43%	118.04%	86.03%
Long-term investments	100%	97.56%	132.87%	60.23%	58.41%
Property, plant and equipment, net	100%	189.09%	146.59%	127.95%	109.74%
Intangible assets	100%	227.02%	124.27%	135.60%	182.76%
Goodwill	100%	120.18%	110.22%	336.42%	59.84%
Deferred income tax asset(non-current)	100%	8.00%	-	-	-

As showed in the table 3.1, the value in 2008 is chosen as a benchmark. We can see that Other receivables, Inventory, Other current assets and Intangible assets are increased a half or more than a half of the value in 2008. On the other hand, Cash and cash equivalents, Short-term investments, account receivable, deferred income tax asset (current), Long-term investments and Goodwill are decreasing at last. We know about the intangible assets play an important role in it like purchasing patents and relative applications.

Table 3.2 Horizontal common size analysis of Balance sheet (liabilities and equity)

	2008	2009	2010	2011	2012

Accounts payable	100%	165.31%	137.28%	135.28%	89.42%
Accrued liabilities	100%	179.31%	132.20%	153.30%	94.86%
Income taxes payable	100%	76.00%	26.59%	186.46%	-
Deferred revenue	100%	145.95%	125.93%	158.82%	243.52%
Current portion of long-term debt	100%	0.00%	-	-	-
Deferred income tax liability	100%	-	115.38%	0.00%	-
Long-term debt	100%	-	-	195.74%	84.06%
Deferred income tax liability	100%	135.38%	32.95%	106.90%	32.26%
Income taxes payable	100%	77.42%	0.00%	-	-
Capital stock	100%	101.75%	107.43%	99.45%	103.69%
Treasury stock	100%	-	-	170.21%	186.88%
Retained earnings	100%	214.52%	148.73%	127.97%	117.25%
Additional paid-in capital	100%	148.15%	0.00%	-	-
Accumulated other comprehensive income	100%	1.52%	11159.74%	-19.61%	-400.00%

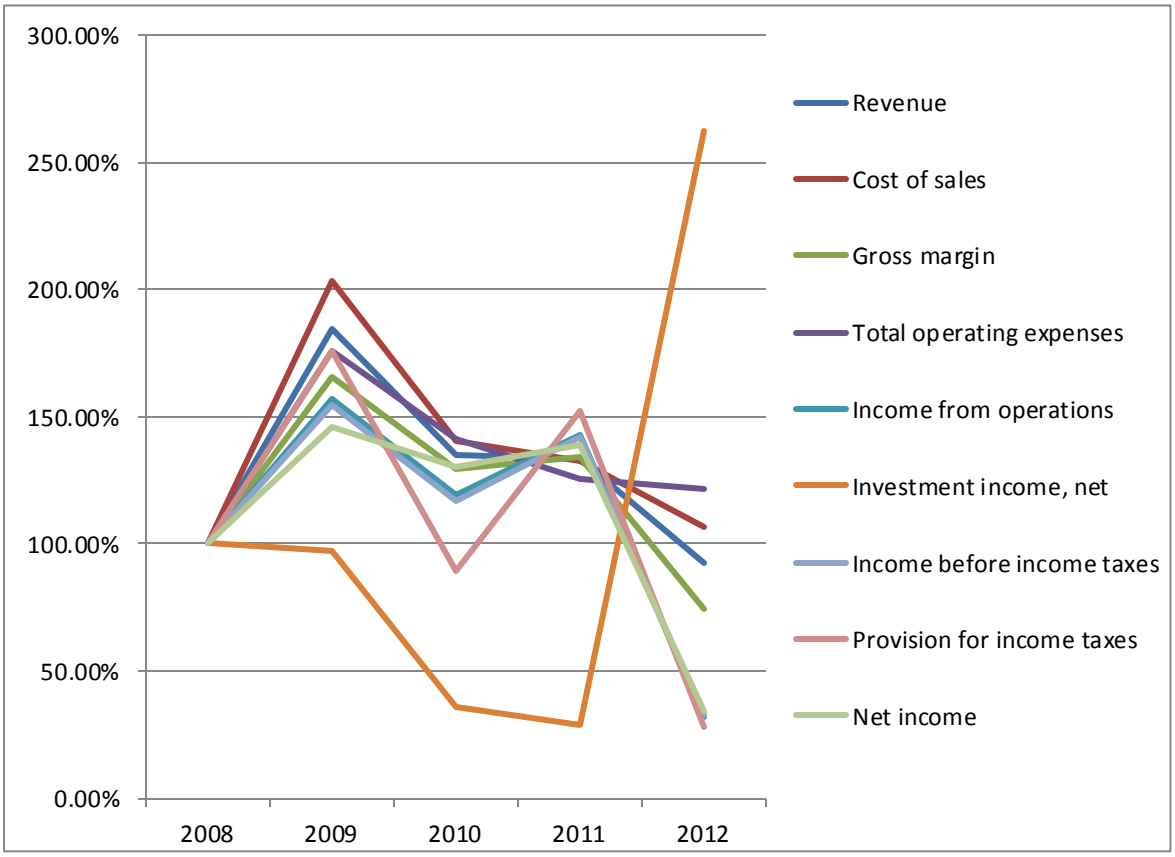
In the horizontal common size analysis of liabilities and equity, Accumulated other comprehensive income waves up and down. Capital stock, Treasury stock, Retained earnings and deferred revenue are all increasing from 2008 to 2012. And we can find out that BlackBerry issues more stock and it'll keep going.

Table 3.3 Horizontal common size analysis of income statement

	2008	2009	2010	2011	2012
Revenue	100.00%	184.14%	135.14%	133.13%	92.61%

Cost of sales	100.00%	203.76%	140.23%	132.42%	106.98%
Gross margin	100.00%	165.49%	129.17%	134.04%	74.55%
Total operating expenses	100.00%	176.06%	140.88%	125.19%	121.48%
Income from operations	100.00%	157.25%	118.96%	143.17%	32.14%
Investment income, net	100.00%	97.50%	35.90%	28.57%	262.50%
Income before income taxes	100.00%	154.61%	116.64%	142.19%	32.54%
Provision for income taxes	100.00%	175.63%	89.10%	152.41%	28.14%
Net income	100.00%	146.21%	129.86%	138.83%	34.12%

Chart 3.4 Horizontal common size analysis of income statement



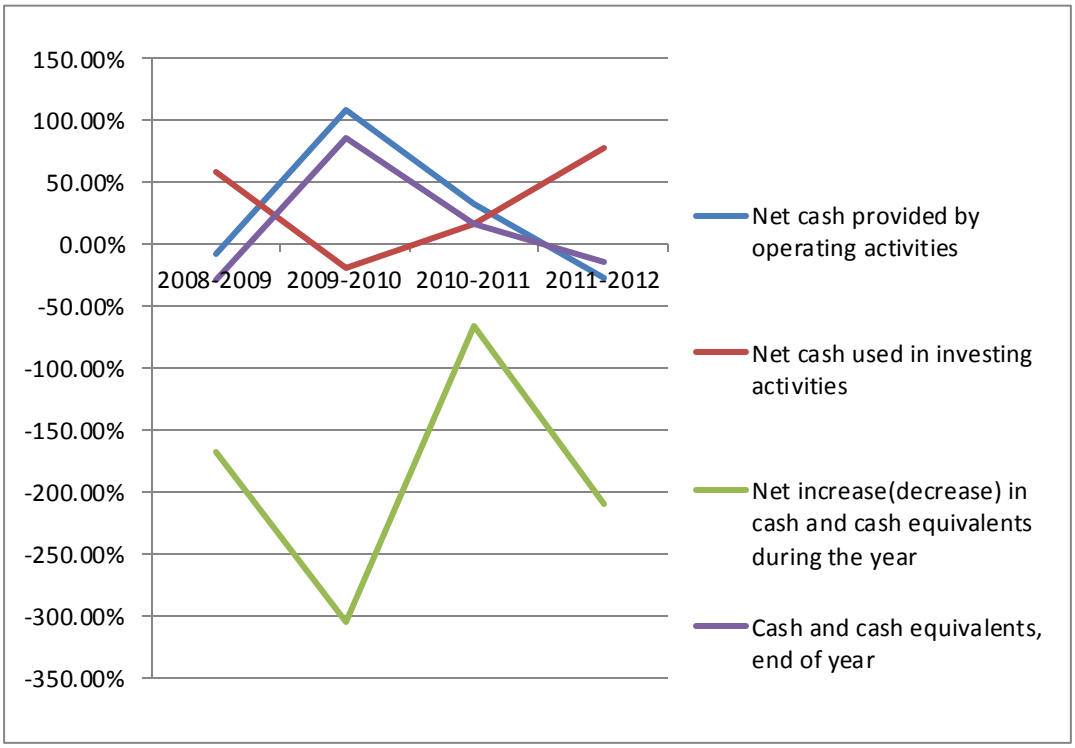
According to the Horizontal common size analysis of income statement, the surrounding of BlackBerry is really not good in recent years especially after the financial crisis since 2008 and the development of strong opponents like Apple and Samsung. At the same time, we could

also see the highly development of the net investment income instead of operating income which is decreased to 32.14% in 2012. And the BlackBerry Company needs innovation and that's one of the reasons of how BlackBerry 10 comes out.

Table 3.4 Annual relative change of cash flow

	2009/2008	2010/2009	2011/2010	2011/2012
Net cash provided by operating activities	-7.93%	109.02%	32.09%	-27.36%
Net cash used in investing activities	57.97%	-19.36%	15.51%	78.09%
Net cash provided by financing activities	-68.75%	-3472.00%	147.57%	-92.86%
Net increase(decrease) in cash and cash equivalents during the year	-168.84%	-304.87%	-66.43%	-210.00%
Cash and cash equivalents, end of year	-29.48%	85.63%	15.55%	-14.74%

Chart 3.5 Cash flow relative changes



The relative change in cash flow obviously tells us that the drastically rise and fall of cash and cash equivalent. And then we can see the net cash used in investing activities is going down from 2009 to 2010 facing the 2008 financial crisis while the net cash provided by operating activities total cash and cash equivalent are increasing during. And this is because BlackBerry should keep more liquid assets to facing the crisis and decreases the investing activities at the same time.

4 Financial analysis of BlackBerry Company

According to the data in balance sheet, income statement, and cash flow from 2008 to 2012 and methods in chapter2, we'll analyze the financial situation of BB Company in chapter 4. The data are showed in Annexes 1,2and 3.

4.1 Financial ratios analysis

The section will compare the financial data in the form of financial ratios to evaluate the current situation or health of a company by using data from financial statement. Financial ratios are in four groups: profitability ratios, liquidity ratios, solvency ratios and activity ratios. Though making profit is the most important capacity to a company, we'll compare BlackBerry Company and Apple Company in profitability ratios and some other selected ratios.

4.1.1 Profitability ratios

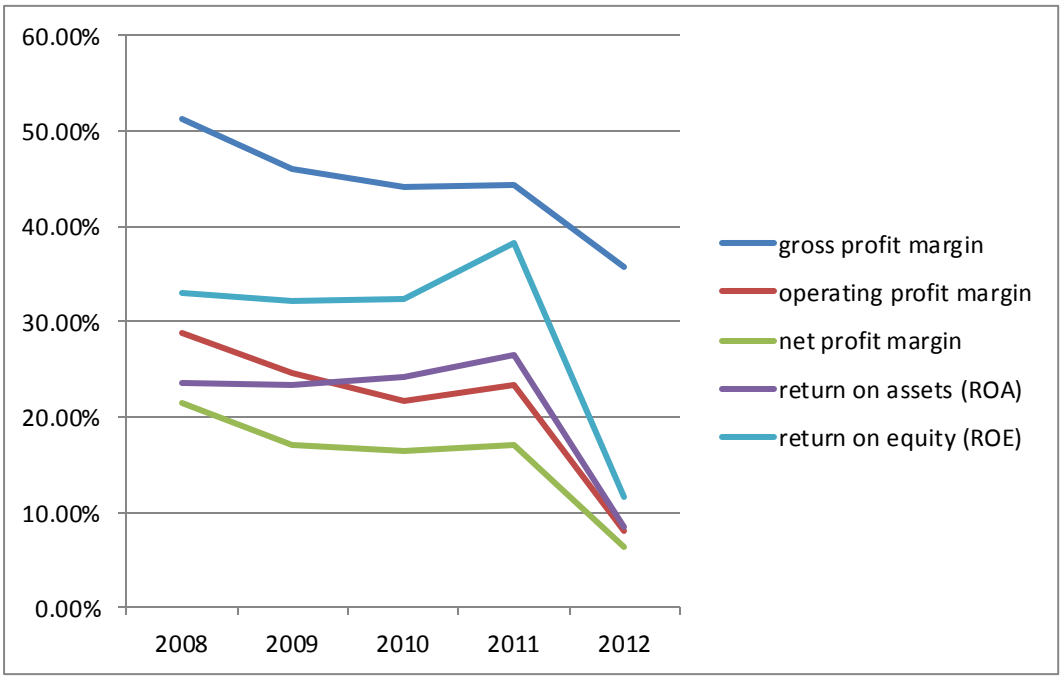
Profitability ratios, just as its name implies, is a ratio measures the ability in managing, operating money and generate profits from activities. Gross profit margin is calculated by formula (2.8), operating profit margin is calculated by formula (2.10), net profit margin is calculated by formula (2.9), return on assets is calculated by formula (2.11) and return on equity is calculated based on formula (2.12).

Table 4.1 Margins, return on assets and return on equity

(In million, USD)	**2008**	**2009**	**2010**	**2011**	**2012**
Net income	1,294	1,892	2,457	3,411	1,164

Income from operations	1,731	2,722	3,238	4,636	1,490
Gross margin	3,080	5,097	6,584	8,825	6,579
Revenue	6,009	11,065	14,953	19,907	18,435
gross profit margin	51.26%	46.06%	44.03%	44.33%	35.69%
operating profit margin	28.81%	24.60%	21.65%	23.29%	8.08%
net profit margin	21.53%	17.10%	16.43%	17.13%	6.31%
return on assets (ROA)	23.48%	23.36%	24.08%	26.49%	8.48%
return on equity (ROE)	32.89%	32.21%	32.32%	38.16%	11.52%

Chart 4.1 Margins, return on assets and return on equity



According to the table 4.1 and chart 4.1, firstly we can find out that the trends of these three margins are all suffering a stable and flat development during 2008 to 2010 and then a small increasing in 2011 before a sharp decrease in 2012.

The return on equity is decreasing by 26.64% during 2012. By using the formula introduced in chapter 2, we can discovery that the Total shareholders' equity is increasing since

2009 but net income is going through a big decline after sustainable growth since 2008 which contributed the decrease of ROE.

Table 4.2 Profitability ratios of Apple Company from 2008 to 2012

	2008	**2009**	**2010**	**2011**	**2012**
gross profit margin	34.31%	40.14%	39.38%	40.48%	43.87%
operating profit margin	19.32%	27.36%	28.19%	31.22%	35.30%
net profit margin	14.88%	19.19%	21.48%	23.95%	26.67%
return on assets	15%	18.92%	22.84%	27.06%	23.70%
return on equity	22.99%	26.03%	29.32%	33.83%	35.30%

Comparing to Apple Company, the data shows us that the profitability of Apple was much higher than that of BlackBerry since 2011 both amount and ratios. According to report of the analyst Toni Sacconaghi from Bernstein Research Company, in the first half year of 2009, BlackBerry is the second in cellphone industry in the operating profit margin, nearly 20% while Nokia, Samsung , LG was just 10% and Sony, MOTO are continuing losses. Apple Company beat Nokia and took up 32% in the profit of whole cellphone industry. These two focused on smartphones companies are both exceeded the average of industry. But after going through the financial crisis and a large number of manufacturers rush into the smartphone market and imitate smartphones, BlackBerry Company was losing its leading place and superiority in smartphone markets.

4.1.2 Liquidity ratios

In this section, we use formula (2.13), (2.14) and (2.15) to calculate current ratio, quick ratio and cash ratio.

Table 4.2 Current ratio

(In million, USD)	**2008**	**2009**	**2010**	**2011**	**2012**
total current assets	3,477	4,841	5,813	7,488	7,056
total current liabilities	1474	2115	2,432	3,630	3,389
current ratio	2.36	2.29	2.39	2.06	2.08

The current ratio is between 1.5 and 3, which indicates good short-term financial strength of BlackBerry. In detail, the higher increase extent of total current liabilities compare to the total current assets resulted in the decrease of current ratio in 2011 and 2012. And this is also the general trend of BlackBerry in last two years.

Table 4.3 quick ratio

(In million, USD)	**2008**	**2009**	**2010**	**2011**	**2012**
total current assets	3,477	4,841	5,813	7,488	7,056
Inventory	396	682	660	618	1,027
Total current liabilities	1474	2115	2,432	3,630	3,389
quick ratio	2.09	1.97	2.12	1.89	1.78

Generally, the higher the ratio, the greater the company's liquidity will be. (i.e. the better able to meet current obligations using liquid assets). BlackBerry is got a good one and all above 1.

We can also discover that inventory is much higher than the last four years especially the Golden Age like 2008 which results in the decrease in 2012. BlackBerry needs more innovation on its application app and continues its QWERT keyboard.

Table4.4 Cash ratio

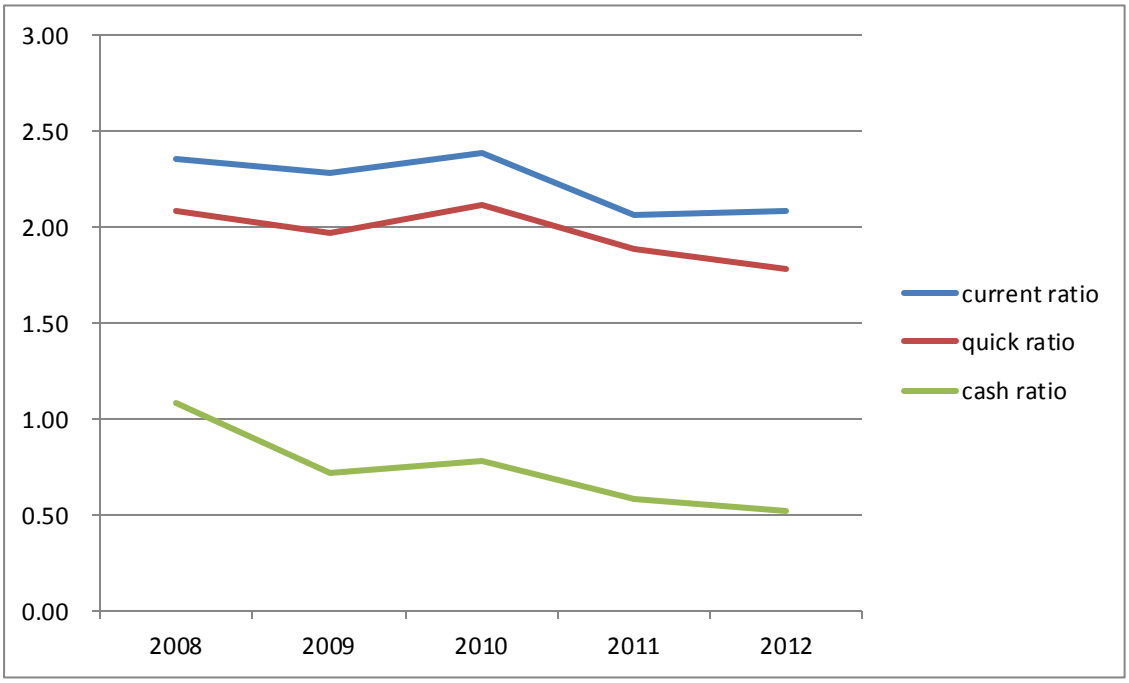
(In million, USD)	**2008**	**2009**	**2010**	**2011**	**2012**
Cash and cash equivalents	1,184	835	1,551	1,791	1,527
Short-term investments	421	683	361	330	247
Total current liabilities	1474	2115	2,432	3,630	3,389
cash ratio	1.09	0.72	0.79	0.58	0.52

According to the table 4.4, because of the increasing of total current liabilities and decreasing of cash and cash equivalents, short-term investments, there is just one year cash ratio was above 1 and it keep decreasing.

Table 4.5 Liquidity ratios

liquidity ratios	2008	2009	2010	2011	2012
current ratio	2.36	2.29	2.39	2.06	2.08
quick ratio	2.09	1.97	2.12	1.89	1.78
cash ratio	1.09	0.72	0.79	0.58	0.52

Chart 4.2 Liquidity ratios



See table 4.5 and chart 4.2, we may summarize that the cash and short-term investment were both cut during 2011 and 2012.

4.1.3 Solvency ratios

In this part, the formula (2.16), (2.17), (2.18), (2.19) are used to calculate debt-to-assets ratio, debt-to-equity ratio, long-term debt-to-equity and financial leverage.

Table 4.6 debt-to-assets ratio

(In million, USD)	**2008**	**2009**	**2010**	**2011**	**2012**
total liabilities	1577	2227	2,602	3,937	3,631
total assets	5,511	8,101	10,205	12,875	13,731
debt-to-assets ratio	28.62%	27.49%	25.50%	30.58%	26.44%

The debt- to-assets ratio waves 5.08% during last five years from 25.50% to 30.58%,

which means25.50% to 30.58% of the Company's assets was financed through debt and the most proportion of the assets was still financed by equity. So the Company was very stable developed and was not highly leveraged and the financial risk revealed by this ratio is not high.

Table 4.7 debt-to-equity ratio

(In million, USD)	**2008**	**2009**	**2010**	**2011**	**2012**
total liabilities	1577	2227	2,602	3,937	3,631
total shareholders' equity	3,934	5874	7,603	8,938	10,100
debt-to-equity ratio	0.40	0.38	0.34	0.44	0.36

The higher the debt-to-equity ratio is, the more aggressive the company is in financing its growth with debt. BlackBerry keeps its debt-to-equity ratio round 40% which means the shareholders' equity of BlackBerry is not standing a big risk of repaying debt.

Table 4.8 long-term debt-to-equity

(In million, USD)	**2008**	**2009**	**2010**	**2011**	**2012**
long-term debt	7	0	141	276	232
total shareholders' equity	3,934	5874	7,603	8,938	10,100
long-term debt-to-equity	0.002	0.000	0.019	0.031	0.023

We surprised to find out that the long-term-debt is too low so that the long-term debt-to-equity ratios of last five years are all below 5%. This indicates that low proportion of a company's assets is financed with long-term debt.

Table 4.9 financial leverage

(In million, USD)	**2008**	**2009**	**2010**	**2011**	**2012**

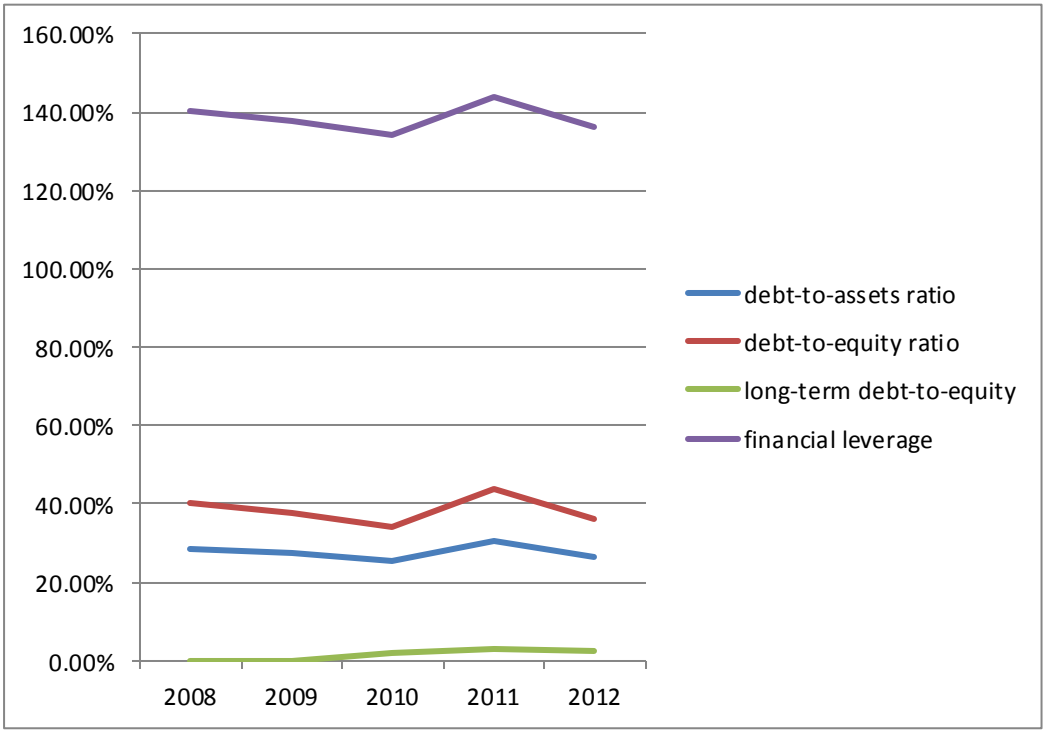
Total assets	5,511	8,101	10,205	12,875	13,731
Total shareholders' equity	3,934	5874	7,603	8,938	10,100
financial leverage	1.40	1.38	1.34	1.44	1.36

A higher financial leverage ratio means lower total shareholders' equity and higher debt. BlackBerry keeps issuing capital stock leads to slightly decrease of financial leverage by 8.33%.

Table 4.10 solvency ratios

solvency ratios	**2008**	**2009**	**2010**	**2011**	**2012**
debt-to-assets ratio	28.62%	27.49%	25.50%	30.58%	26.44%
debt-to-equity ratio	0.40	0.38	0.34	0.44	0.36
long-term debt-to-equity	0.002	0.000	0.019	0.031	0.023
financial leverage	1.40	1.38	1.34	1.44	1.36

Chart 4.3 solvency ratios



According to the solvency ratio table 4.10 and chart 4.3, it is obvious that BlackBerry is in a good condition of solvency. Meanwhile, BlackBerry also need to operate its assets well and do more investment instead of retain.

Table 4.11 Long-term debt-to-asset ratio and debt-to-assets ratio of Apple Company

	2008	**2009**	**2010**	**2011**	**2012**
long-term debt-to-asset ratio	11.25%	9.17%	8.87%	10.13%	14.10%
debt-to-assets ratio	46.86%	33.39%	36.43%	34.16%	32.86%

Comparing to solvency ratio in Apple Company, we can easily find out that the long-term debt-to-assets ratio and debt-to assets ratio of Apple are both much higher than BlackBerry Company. This indicates that higher proportion of Apple's assets is financed with long-term debt. And the shareholders' equity of BlackBerry is standing higher risk of repaying debt than BlackBerry Company.

4.1.4 Activity ratios

In this section, the formula (2.20), (2.21), (2.22), (2.23) are used to calculate receivables turnovers, inventory turnover, days sales outstanding in accounts receivables, total assets turnover.

Table 4.12 Receivables turnovers and days sales outstanding in accounts receivables

(In million, USD)	**2008**	**2009**	**2010**	**2011**	**2012**
Revenue	6,009	11,065	14,953	19,907	18,435
account receivable, nets	1,174	2,112	2,594	3,955	3,062
Other receivables	75	158	206	324	496
receivables turnovers	4.81	4.87	5.34	4.65	5.18
days sales outstanding in accounts receivables	76	75	69	79	71

A higher receivable turnover ratio means that the company can get the receivables fast, the days of receiving receivables are short, the liquidity is high, short-term debt paying ability is strong and fewer bad debt losses. As showed in the table 4.12, we can see the receivables turnover ratio is stable round 5% and the days sales outstanding in accounts receivables is too high to nearly 80. These all told us that BlackBerry get the receivables slow, its paying ability is weak and may face bad debt. BlackBerry is focus on Business people and company, so their orders mostly become receivables. Receivables increase as revenue leads to the low receivables turnovers.

Table 4.13 Inventory turnover

(In million, USD)	**2008**	**2009**	**2010**	**2011**	**2012**
Revenue	6,009	11,065	14,953	19,907	18,435
Inventory	396	682	660	618	1,027
inventory turnover	15.17	16.22	22.66	32.21	17.95

The higher the inventory turnover ratio is, the less the inventory is and the stronger the company's ability and efficiency in selling are. Inventory is keep increasing typically in 2012, at the same time revenue decrease 1472 million USD which results in the decrease in inventory turnover ratio. The weakness in promoting products and its high cost of sales lead to the current situation for BlackBerry.

Table 4.14 Total assets turnover

(In million, USD)	**2008**	**2009**	**2010**	**2011**	**2012**
Revenue	6,009	11,065	14,953	19,907	18,435
Total assets	5,511	8,101	10,205	12,875	13,731
Total assets turnover	1.09	1.37	1.47	1.55	1.34

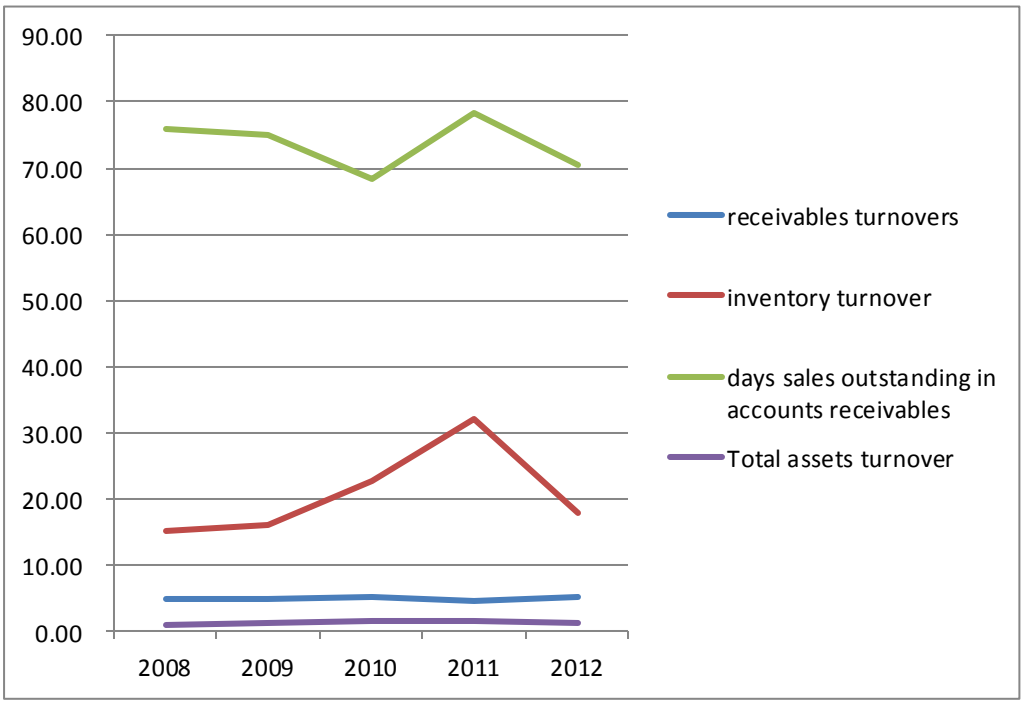
Due to the table 4.14, we can find out that the total assets turnover is waving from 1.09 to 1.55 during last five years. Still a typical decrease during 2011 to 2012, because the revenue is going down and the total assets is arise especially for intangible assets. BlackBerry should take steps to improve the efficiency of usage of asset and the idle capital, improve the sales revenue.

Table 4.1 Activity ratios

activity ratios	**2008**	**2009**	**2010**	**2011**	**2012**

receivables turnovers	4.81	4.87	5.34	4.65	5.18
inventory turnover	15.17	16.22	22.66	32.21	17.95
days sales outstanding in accounts receivables	75.87	74.88	68.35	78.46	70.45
Total assets turnover	1.09	1.37	1.47	1.55	1.34

Chart 4.4 activity ratios



Going through the four activity ratios, we can find out that the receivables turnover are higher than the total assets turnover, which means the receivables are lower than total assets, is a good situation. Both inventory turnover and days sales outstanding in accounts receivables has a typically decline in 2012.

4.2 Pyramidal decompositions

Pyramidal decomposition is based on DuPont analysis. It quantifies factors and analysis the increments in synthetic indicators. We use formula (2.17), (2.18), (2.19), (2.20), (2.21) to calculate the following data.

Table4.16 Pyramidal decomposition

	2008	2009	2010	2011	2012
a1=EAT/REV (net profit margin)	0.22	0.17	0.16	0.17	0.06
a2=REV/ASSETS(Total assets turnover)	1.09	1.37	1.47	1.55	1.34
a3=ASSETS/EQUITY (financial leverage)	1.40	1.38	1.34	1.44	1.36
ROE	32.89%	32.21%	32.32%	38.16%	11.52%

ROE is decomposed into net profit margin, total assets turnover, financial leverage, and then we insert the data of each year and calculate basic ratio.

According to formula (2.24),

$$\mathrm{ROE} = \mathrm{a1} \cdot \mathrm{a2} \cdot \mathrm{a3} \tag{2.31}$$

The gradual change method

According to formula (2.30), the influence of sub-indicators can be calculated like:

$$\Delta x_{a_1} = \Delta a_1 \cdot a_{2,0} \cdot a_{3,0} \cdot \frac{\Delta y_x}{\Delta x} \tag{2.32}$$

$$\Delta x_{a_2} = a_{1,1} \cdot \Delta a_2 \cdot a_{3,0} \cdot \frac{\Delta y_x}{\Delta x} \tag{2.33}$$

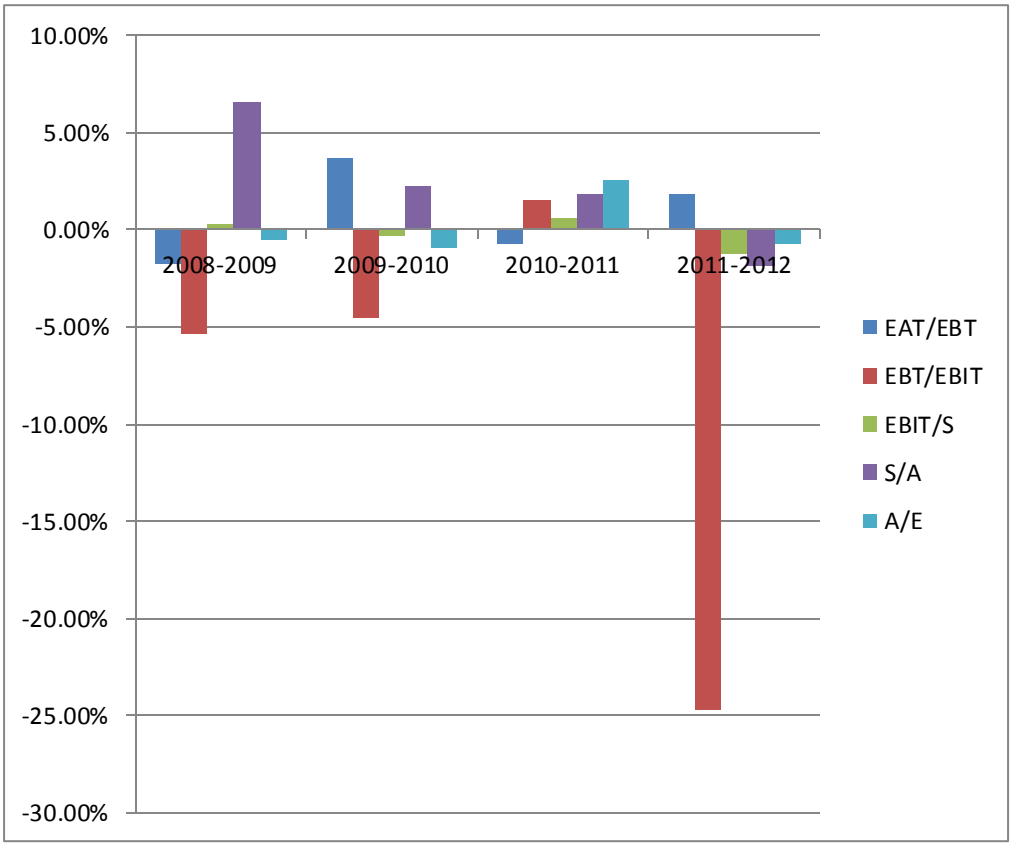
$$\Delta x_{a_3} = a_{1,1} \cdot a_{2,1} \cdot \Delta a_3 \cdot \frac{\Delta y_x}{\Delta x} \tag{2.34}$$

By using formula (2.32), (2.33), (2.34), we can calculate the influence of sub-indicators and get the table 4.17 as follows:

Table 4.17 Influence of the sub-indicators on the absolute change of ROE

	2008-2009	2009-2010	2010-2011	2011-2012
EAT/EBT	-1.79%	3.65%	-0.76%	1.86%
EBT/EBIT	-5.32%	-4.54%	1.58%	-24.69%
EBIT/S	0.33%	-0.36%	0.57%	-1.27%
S/A	6.60%	2.25%	1.86%	-1.85%
A/E	-0.51%	-0.89%	2.60%	-0.69%

Chart 4.5 Influence of the sub-indicators on the absolute change of ROE



The formula (2.22) and (2.23) are used in calculating ΔXai in the gradual change method.

From 2008 to 2009, we can easily find out that S/A and EAT/EBT are first and second influencing factor to ROE, in which S/A is militate a positive impact by 6.60% and EAT/EBT is

militate a negative impact by -5.32%. Actually, in 2008 to 2009 the annual revenue is stable and considerable without too much influence of financial crisis. Revenue turnover is high means that the operating and decision is leading the company to a good place.

From 2009 to 2010, the impact of EAT/EBT is arising from -1.79% to 3.65%. The influence of EAT/EBT is stable while that of S/A is decreasing from 6.60% to 2.25%. The increasing of revenue is slow down in 2009 while tax divided by earning before tax is higher compared to last year.

From 2010 to 2011, these five factors are all medial during this period. Apparently we can see the decrease impact of EBT/EBIT from -4.54% to 1.58%. The revenue is stable growing; the company has done a good job in sales.

From 2011 to 2012, there is a sharp decrease of EBT/EBIT during this period. At the same time, EBIT/S, S/A and A/E all show a negative impact on ROE ratio which leads to a huge decrease of ROE by 26.64%. The cost of sale is still high and the net income decreased because of operation capacity of BlackBerry went down.

5 Conclusion

For a long time, BBer is facing a fewer application situation, but we are still glad to have its fantastic full qwerty, its sweet design and push in mails and so on. Due to the analysis in chapter 4, we may find out that BlackBerry is doing a good job from 2008 to 2011: The revenue and net income are keep increasing step by step, return on equity and return on assets are both ok; the current ratio and quick ratio looks fine shows us the good capacity of BlackBerry turns assets into cash and cash equivalents; solvency ratio indicates that the debt especially long-term debt is controlled in a certain place and performs straight and narrow; the activity ratios also show the good operating ability to sell inventory into the market.

But at the same time, we may notice that BlackBerry is suffering a bad period in 2012, which has little connection to financial crisis in 2008. BlackBerry is not beaten by surroundings but himself. Almost all the financial ratios are fallowing down except current ratio and receivable turnover. The inventory goes high and lower orders have got. BlackBerry is still profitable and will be more efficiency in paying debt if it decreases the huge cost of sales.

The world and BBers still believe in BlackBerry. The competitors have their own culture, so do BlackBerry. Apple and Samsung have got almost 90% in global smartphone industry. After locked in Apple and Android for too long, it's good to find something with innovation and different idea; BlackBerry was used to be the leader in global smartphone industry for the first ten years and the goodwill is invaluable; BlackBerry launch its BB10 after long time preparation instead of rapidly push out Pearl, Storm, Bold and Torch which messed up its customer; BlackBerry nowadays has a good relationship with the application developers and shows respect to them, and this will earn more and more top application and game developers' attention.

Above all, BlackBerry is becoming more completive and attractive. We are waiting for

what BB10 can bring to the company and we may analysis it in next thesis.

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List of Abbreviations

BB: BlackBerry

BBer: BlackBerryer

ROA: Return on assets

ROE: Return on equity

TL: Total liabilities

TA: Total assets

LTD: Long-term debt

TR: Total revenue.

DSI: Days sales outstanding.

EBIT: Earnings before interest and taxes

EAT: Earnings after taxes

EBT: Earnings before taxes

S: Sales

A: Assets

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Annex1 Balance sheet of BlackBerry Company from 2008-2012

Balance sheet (In million, USD)					
	2008	2009	2010	2011	2012
Cash and cash equivalents	1,184	835	1,551	1,791	1,527
Short-term investments	421	683	361	330	247
account receivable, nets	1,174	2,112	2,594	3,955	3,062
Other receivables	75	158	206	324	496
Inventory	396	682	660	618	1,027
Income taxes receivable	0	0	0	0	135
Other current assets	136	187	247	241	365
Deferred income tax asset	91	184	194	229	197
total current assets	3,477	4,841	5,813	7,488	7,056
Long-term investments	739	721	958	577	337
Property, plant and equipment, net	706	1,335	1,957	2,504	2,748
Intangible assets	470	1,067	1,326	1,798	3,286
Goodwill	114	137	151	508	304
Deferred income tax asset	5	0.4			
Total Non-current Assets	2034	3260.4	4392	5387	6675
Total assets	5,511	8,101	10,205	12,875	13,731
Accounts payable	271	448	615	832	744
Accrued liabilities	691	1,239	1,638	2,511	2,382

Income taxes payable	475	361	96	179	0
Deferred revenue	37	54	68	108	263
Current portion of long-term debt	0.349	0	0	0	0
Deferred income tax liability	0	13	15	0	0
Total current liabilities	1474	2115	2,432	3,630	3,389
Long-term debt	7	0	141	276	232
Deferred income tax liability	65	88	29	31	10
Income taxes payable	31	24	0	0	0
total non-current liabilities	103	112	170	307	242
Total liabilities	1577	2227	2,602	3,937	3,631
Capital stock	2,170	2,208	2,372	2,359	2,446
Treasury stock	0	0	-94	-160	-299
Retained earnings	1,653	3,546	5,274	6,749	7,913
Additional paid-in capital	81	120	0	0	0
Accumulated other comprehensive income	30	0.457	51	-10	40
Total shareholders' equity	3,934	5874	7,603	8,938	10,100
Total liabilities and shareholders' equity	5,511	8,101	10,205	12,875	13,731

Annex 2 Income statement of BlackBerry Company from 2008-2012

Statement of cash flow (In million, USD)					
	2008	2009	2010	2011	2012
Net income	1,294	1,893	2,457	3,411	1,164
Amortization	177	327	615	927	1,523
Deferred income taxes	-67	-36	51	92	-5
Income taxes payable	5	-7	5	2	-21
Stock-based compensation	34	38	58	72	97
Impairment of goodwill	0	0	0	0	355
Other	3	6	9	1	9
Net changes in working capital items	131	-769	-160	-496	-210
Net cash provided by operating activities	1,577	1,452	3,035	4,009	2,912
Acquisition of long-term investments	-758	-507	-863	-784	-355
Proceeds on sale or maturity of long-terms	260	431	473	893	376
Acquisition of property, plant and equipment	-352	-833	-1,009	-1,039	-902
Acquisition of intangible assets	-374	-688	-421	-557	-2,217
Business acquisitions, net of cash acquired	-6	-48	-143	-494	-226
Acquisition of short-term investments	-1,250	-917	-477	-503	-250
Proceeds on sale or maturity of short-term investment	1,326	739	970	786	550
Net cash used in investing activities	-1,154	-1,823	-1,470	-1,698	-3,024
Issuance of common shares	62	26	30	67	9

Additional paid-in capital	10	0	0	0	0
Excess tax benefits from stock-based compensation	8	13	2	-1	-2
Purchase of treasury stock	0	0	-94	-76	-156
Common shares repurchased	-	0	-775	-2,077	0
Repayment of debt	-0.3	-14	-6	0	0
Net cash provided by financing activities	80	25	-843	-2,087	-149
Effect of foreign exchange gain(loss) and cash equivalents	4	-3	-7	16	-3
Net increase(decrease) in cash and cash equivalents during the year	507	-349	715	240	-264
Cash and cash equivalents, beginning of year	677	1,184	835	1,551	1,791
Cash and cash equivalents, end of year	1,184	835	1550	1,791	1,527

Annex 3 Cash flow of BlackBerry Company from 2008-2012

Income statement (In millions, USD)					
	2008	2009	2010	2011	2012
Revenue	6,009	11,065	14,953	19,907	18,435
Cost of sales	2,929	5,968	8,369	11,082	11,856
Gross margin	3,080	5,097	6,584	8,825	6,579
Research and development expenses	360	685	965	1,351	1,559
Selling, marketing and administrative expenses	881	1,495	1,907	2,400	2,604
Amortization	108	195	310	438	571
Litigation	0	0	164	0	0
Impairment of goodwill	0	0	0	0	355
Total operating expenses	1,349	2,375	3,346	4,189	5,089
Income from operations	1,731	2,722	3,238	4,636	1,490
Investment income, net	80	78	28	8	21
Income before income taxes	1,811	2,800	3,266	4,644	1,511
Provision for income taxes	517	908	809	1,233	347
Net income	1,294	1,892	2,457	3,411	1,164
earnings per share(diluted)	$ 2.26	$ 3.30	$ 4.31	$ 6.34	$ 2.22

Annex 4 Financial ratios of BlackBerry Company from 2008-2012

	2008	2009	2010	2011	2012
profitability ratios					
gross profit margin	51.26%	46.06%	44.03%	44.33%	35.69%
operating profit margin	28.81%	24.60%	21.65%	23.29%	8.08%
net profit margin	21.53%	17.10%	16.43%	17.13%	6.31%
return on assets (ROA)	23.48%	23.36%	24.08%	26.49%	8.48%
return on equity (ROE)	32.89%	32.21%	32.32%	38.16%	11.52%
liquidity ratios					
current ratio	2.36	2.29	2.39	2.06	2.08
quick ratio	2.09	1.97	2.12	1.89	1.78
cash ratio	1.09	0.72	0.79	0.58	0.52
solvency ratios					
debt-to-assets ratio	28.62%	27.49%	25.50%	30.58%	26.44%
debt-to-equity ratio	0.40	0.38	0.34	0.44	0.36
long-term debt-to-equity	0.002	0.000	0.019	0.031	0.023
financial leverage	1.40	1.38	1.34	1.44	1.36
activity ratios					
receivables turnovers	4.81	4.87	5.34	4.65	5.18
inventory turnover	15.17	16.22	22.66	32.21	17.95
days sales outstanding in accounts receivables	75.87	74.88	68.35	78.46	70.45
Total assets turnover	1.09	1.37	1.47	1.55	1.34

Annex 5 Vertical common size analysis of balance sheet (assets)

	2008	2009	2010	2011	2012
Cash and cash equivalents	21.48%	10.31%	15.20%	13.91%	11.12%
Short-term investments	7.64%	8.43%	3.54%	2.56%	1.80%
account receivable, nets	21.30%	26.07%	25.42%	30.72%	22.30%
Other receivables	1.36%	1.95%	2.02%	2.52%	3.61%
Inventory	7.19%	8.42%	6.47%	4.80%	7.48%
Income taxes receivable	0.00%	0.00%	0.00%	0.00%	0.98%
Other current assets	2.47%	2.31%	2.42%	1.87%	2.66%
Deferred income tax asset	1.65%	2.27%	1.90%	1.78%	1.43%
Long-term investments	13.41%	8.90%	9.39%	4.48%	2.45%
Property, plant and equipment, net	12.81%	16.48%	19.18%	19.45%	20.01%
Intangible assets	8.53%	13.17%	12.99%	13.97%	23.93%
Goodwill	2.07%	1.69%	1.48%	3.95%	2.21%
Deferred income tax asset	0.09%	0.00%	0.00%	0.00%	0.00%

Annex 6 Vertical common size analysis of balance sheet (liabilities and equity)

	2008	2009	2010	2011	2012
Accounts payable	4.92%	5.53%	6.03%	6.46%	5.42%
Accrued liabilities	12.54%	15.29%	16.05%	19.50%	17.35%
Income taxes payable	8.62%	4.46%	0.94%	1.39%	0.00%
Deferred revenue	0.67%	0.67%	0.67%	0.84%	1.92%
Current portion of long-term debt	0.01%	0.00%	0.00%	0.00%	0.00%
Deferred income tax liability	0.00%	0.16%	0.15%	0.00%	0.00%
Long-term debt	0.13%	0.00%	1.38%	2.14%	1.69%
Deferred income tax liability	1.18%	1.09%	0.28%	0.24%	0.07%
Income taxes payable	0.56%	0.30%	0.00%	0.00%	0.00%
Capital stock	39.38%	27.26%	23.24%	18.32%	17.81%
Treasury stock	0.00%	0.00%	-0.92%	-1.24%	-2.18%
Retained earnings	29.99%	43.77%	51.68%	52.42%	57.63%
Additional paid-in capital	1.47%	1.48%	0.00%	0.00%	0.00%
Accumulated other comprehensive income	0.54%	0.01%	0.50%	-0.08%	0.29%

Annex 7 Vertical common size analysis of income statement

	2008	2009	2010	2011	2012
Revenue	100.00%	100.00%	100.00%	100.00%	100.00%
Cost of sales	48.74%	53.94%	55.97%	55.67%	64.31%
Gross margin	51.26%	46.06%	44.03%	44.33%	35.69%
Total operating expenses	22.45%	21.46%	22.38%	21.04%	27.61%
Income from operations	28.81%	24.60%	21.65%	23.29%	8.08%
Investment income, net	1.33%	0.70%	0.19%	0.04%	0.11%
Income before income taxes	30.14%	25.31%	21.84%	23.33%	8.20%
Provision for income taxes	8.60%	8.21%	5.41%	6.19%	1.88%
Net income	21.53%	17.10%	16.43%	17.13%	6.31%

Annex 8 Annual Changes in Balance Sheet (2008-2012)

	2009/2008	2010/2009	2011/2010	2011/2012
total current assets	39.23%	20.08%	28.81%	-5.77%
Total Non-current Assets	60.29%	34.71%	22.65%	23.91%
Total assets	47.00%	25.97%	26.16%	6.65%
Total current liabilities	43.49%	14.99%	49.26%	-6.64%
total non-current liabilities	8.74%	51.79%	80.59%	-21.17%
Total liabilities	41.22%	16.84%	51.31%	-7.77%
Total shareholders' equity	49.31%	29.43%	17.56%	13.00%
Total liabilities and shareholders' equity	47.00%	25.97%	26.16%	6.65%

Annex 9 Influence of the sub-indicators on the relative change of ROE

	2008-2009	2009-2010	2010-2011	2011-2012
EAT/EBT	-5.43%	11.33%	-2.37%	4.88%
EBT/EBIT	-16.16%	-14.11%	4.88%	-64.69%
EBIT/S	1.00%	-1.13%	1.76%	-3.34%
S/A	20.06%	6.99%	5.76%	-4.85%
A/E	-1.54%	-2.76%	8.05%	-1.80%